

## NEW RECORDS OF THE GENUS *Iotonchus* (Mononchida, Iotonchidae) FOR VIETNAM FAUNA AND AN UPDATED KEY TO SPECIES FROM VIETNAM

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**ABSTRACT:** Five species of the genus *Iotonchus* (Cobb, 1916) Altherr, 1950, viz. *Iotonchus arcuatus*, *I. candelabri*, *I. paracutus*, *I. pusillus* and *I. singaporensis*, were recorded for the first time in Vietnam. All newly recorded species were also redescribed and illustrated, these species are recorded from Cat Ba and Bidoup-Nui Ba National Parks. In addition, the current status of two species, *I. helicus* and *I. thui*, which were originally discovered in Vietnam was discussed. An updated key to all extant species from Vietnam is also provided.

**Keywords:** Mononchida, Iotonchidae, *Iotonchus*, key, new record, Vietnam.

### INTRODUCTION

In Vietnam up to now, studies on predaceous nematodes of the order Mononchida identified 15 species of the genus *Iotonchus* (Iotonchidae) could be found in a few of works [8, 10]. In the present paper, five of the genus *Iotonchus* species, *I. arcuatus* Khan, Araki & Bilgrami, 2000, *I. candelabri* Yeates, 1992, *I. paracutus* Vinciguerra & Orselli, 2000, *I. pusillus* Loof, 2006 and *I. singaporensis* Ahmad, Baniyamuddin & Jairajpuri, 2006, were identified and represent new records for the nematode fauna in Vietnam, all species were collected in Cat Ba and Bidoup-Nui Ba National Parks.

Due to conflation of some important characters between description and figures in the original article of *I. helicus* and *I. thui* [9], we decided to check the holotype and paratypes, which were deposited and preserved at the Department of Nematology, IEBR (Dr. Nguyen Vu Thanh's collection). Unfortunately, all type material including of holotype, paratypes and syntypes of *I. helicus* Nguyen, 2006 and *I. thui* Nguyen, 2006 were not available. The validity of these species is discussed.

### MATERIALS AND METHODS

Soil samples were collected from pristine tropical forest areas in Cat Ba and Bidoup-Nui Ba National Parks (Vietnam). Nematodes were extracted from soil sample by modified

Baermann funnel technique [12], killed by heat, fixed in TAF solution (7 formalin 40%: 2 triethanolamine: 91 distilled water), transferred to anhydrous glycerol according to Seinhorst (1959) [11], and mounted on glass slides for study. Specimens were drawn using an Olympus microscope CH40 with drawing tube and illustrations were edited by Adobe Illustrator CS.

### RESULTS AND DISCUSSION

#### *Iotonchus arcuatus* Khan, Araki & Bilgrami, 2000 (Fig. 1)

Material examined: 18 females in good condition. Measurements: see table 1.

**Female:** Moderately slender nematodes of medium size, 1.3-1.6 mm long. Habitus after fixation ventrally arcuate, especially towards posterior end. Cuticle smooth, 3-4  $\mu$ m thick throughout body. Lip region slightly offset from body contour by depression, 36-39  $\mu$ m width and 12-15  $\mu$ m height. Labial papillae prominent, protruded. Amphidial fovea cup shaped, aperture situated at 14-16  $\mu$ m from anterior end of body. Buccal cavity medium size 27-34  $\mu$ m length and 15-22  $\mu$ m width or about 1.5 times as long as wide, strongly sclerotized. Dorsal tooth with sharp apex, pointing forward, located at 9-10  $\mu$ m or 22-25% of buccal cavity length from its base. Oesophagus cylindroid, 279-320  $\mu$ m long, nerve ring at about one quarter of its length from anterior end; secretory-excretory pore located

just posterior to nerve ring. Oesophago-intestinal junction tuberculate. Intestine with wide lumen. Reproductive system didelphic-amphidelphic, both branches equally developed with ovary reflexed. *Sphincter* present between oviduct and uterus. Vulva transverse slit with *par refringens vaginae* sclerotized in 2 pieces. Vagina surrounded by a well-developed constrictor

muscle, extending inwards about one third of corresponding body width deep. Rectum straight, thick-walled and muscular, almost equal to anal body width long. Tail 247-295  $\mu$ m long, gradually tapering, posteriorly strongly ventrally curved to coiled with acutely rounded terminus. Caudal gland and *spinneret* absent.

Table 1. Morphometric data of *Iotonchus arcuatus* Khan, Araki & Bilgrami, 2000

Reference	Distribution	<i>Iotonchus arcuatus</i>	
		Hinokuma mountain-Saga Prefecture (Japan)	Bidoup-Nui Ba (Vietnam)
		Khan et al., 2000	Present paper
n		7 ♀	18 ♀
L (mm)		1.7-1.8	1.3-1.6
a		35-41	27-33
b		4.4-4.7	4.6-5.4
c		4.9-6.0	4.7-6.8
c'		9.2-10.5	7.3-11
V (%)		55-57	51-55
Buccal cavity length (m)		38-41	27-34
Buccal cavity width (m)		24-28	15-22
Neck length (m)		367-403	279-320
Body diameter at vulva (m)		43-48.5	48-48.5
Anal body diameter (m)		31-35	28-34
Tail length (m)		286-360	247-295

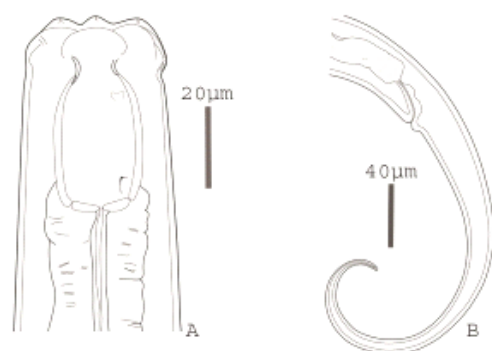


Figure 1. *Iotonchus arcuatus* Khan, Araki & Bilgrami, 2000

A. Head region; B. View of female tail region.

*Male*: Not found.

*Remark*: The measurements and description of Vietnamese specimens correspond well to type population from Japan 5 exception slightly stout body ( $a = 27-33$  vs  $35-41$ ) and smaller size

of buccal cavity ( $38-41 \times 24-28 \mu\text{m}$  vs  $27-34 \times 15-22 \mu\text{m}$ ).

*Locality*: Bidoup-Nui Ba National Park (Lam Dong).

#### *Iotonchus candelabri* Yeates, 1992 (Fig. 2)

Material examined: one female and one male in good condition. Measurement: see table 2.

*Female*: Body gently curved ventrally when fixed by heat and TAF. Cuticle smooth. Lip region width 47  $\mu$ m, slightly offset from the body contour. Buccal cavity about one and half time as long as wide, with broad base, 47  $\mu$ m length and 35  $\mu$ m width. Dorsal tooth located near the base of buccal cavity with sharply apex directed forwards about 28-30% of buccal cavity length from its base. Oesophagus cylindrical, surrounds base of buccal cavity. Oesophago-intestinal junction tuberculate. Secretory-excretory system and pore not observed. Productive system didelphic-amphidelphic, both

branches equally developed with ovary reflexed. *Sphincter* present between oviduct and uterus. Vulva transverse slit with *par refringens vaginae* sclerotized in 2 small dots in optical section. Vagina surrounded by a well-developed constrictor muscle, extending inwards about halfway of corresponding body width deep.

Advulva papillae present, which do not protrude from body contour. Prerectum not differentiated. Rectum straight, thick-walled and muscular, less than an anal body width long. Tail elongated conoid, 280  $\mu$ m long, rounded terminus. Three caudal glands well developed. *Spinneret* present sub-ventrally.

Table 2. Morphometric data of *Iotonchus candelabri* Yeates, 1992

Reference	Distribution	<i>Iotonchus candelabri</i>			
		Champ de Bataille (New Caledonia)		Cat Ba (Vietnam)	
		Yeates, 1992		Present paper	
n		6 ♀	4 ♂	1 ♀	1 ♂
L (mm)		2.4-2.9	2.6-2.8	2.5	2.5
a		38-42	38-43	33.7	31
b		4.2-4.6	4.3-4.5	5.2	4.5
C		6.4-7.5	7.1-8.6	8.4	8.7
C'		7.5-9.2	5.2-6.6	5.5	4
V %		61-63	-	58	-
Buccal cavity length (m)		49-52	43-48	46.6	44
Buccal cavity width (m)		35-41	33-38	35.3	34
Neck length (m)		?	?	463.6	436.3
Body diameter at vulva (m)		?	?	74.3	81
Anal body diameter (m)		?	?	51	57.5
Tail length (m)		350-450	310-400	279	230
Spicules length (m)		-	77-83	-	90
Supplements		-	12-16	-	14

?. no information.

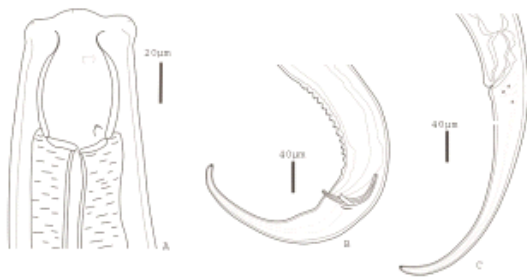


Figure 2. *Iotonchus candelabri* Yeates, 1992

A. Head region; B. View of male tail region;  
C. View of female tail region.

**Male:** Similar to female in general morphology. Testes paired, opposed, outstretched. Prerectum distinct, beginning slightly anterior to copulatory muscles. Mid-ventral supplements 14 with a single ventral pore about body width anterior to first. Spicules

paired, arcuate, with little cephalic expansion. Lateral guiding pieces 16  $\mu$ m and gubernaculum 12.5  $\mu$ m, well developed. Tail elongate conoid, terminus rounded. Three caudal glands well developed, *spinneret* present sub-ventral terminus.

**Remark:** The measurements of Vietnamese specimens fitted well with type population from New Caledonia [15] exception slightly stout body ( $a = 31-34$  vs  $38-43$ ) and longer spicules.

**Locality:** Cat Ba National Park (Hai Phong).

### *Iotonchus paracutus* Vinciguerra & Orselli, 2000 (Fig. 3)

Material examined: one female in good condition. Measurement: see table 3.

**Female:** Body large and robust, tapering at the posterior extremity. Body width at cardia

1.4 lip region width. Cuticle finely transversely striated, 2  $\mu$ m thick at the mid-body. Amphidial aperture small, cup shaped, beginning at 21  $\mu$ m from anterior end of body. Lip region broader than adjoining body and set off by constriction. Buccal cavity heavily sclerotized, 40.5  $\mu$ m length and 31.5  $\mu$ m width. Dorsal tooth located almost at its base with sharply apex directing forwards, located at 20% buccal cavity length from its base. Oesophagus cylindrical, surrounds base of buccal cavity. Nerve ring located at 52% of the pharyngeal length from

anterior end. Oesophago-intestinal junction tuberculate. Productive system didelphic-amphidelphic, both branches equally developed with ovary reflexed. Vulva transverse slit with *par refringens vaginae* sclerotized in 2 pieces. Prerectum not differentiated.

Rectum straight, thick-walled and muscular, about 0.7 anal body width long. Tail elongated conoid, straight, 172  $\mu$ m long or about 4 anal body diameter long, rounded terminus. *Spinneret* absent.

Table 3. Morphometric data of *Iotonchus paracutus* Vinciguerra & Orselli, 2000

Reference	Distribution	<i>Iotonchus paracutus</i>		
		Siracusa (Italy)		Cat Ba (Vietnam)
		Vinciguerra & Orselli, 2000		Present paper
n		2 ♀	2 ♂	1 ♀
L (mm)		1.9-2.2	1.6	1.82
a		23-26	23-24	20
b		5-5.1	4.6	4.5
c		9.4-10.9	10.5-11.3	10.5
c'		3.5-4.6	2.8-3	3.8
V %		62-63	-	62
Buccal cavity length (m)		42*	42.5*	40.5
Buccal cavity width (m)		35-40	30-32.5	31.5
Neck length (m)		370-430	345-347	400
Body diameter at vulva (m)		82.5	65-70	91
Anal body diameter (m)		47.5-50	50	45.5
Tail length (m)		170-230	140-150	172.7
Spicules length (m)		-	57.5-62.5	-
Supplements		-	10-11	-

\* The measurement was calculated from original figure.

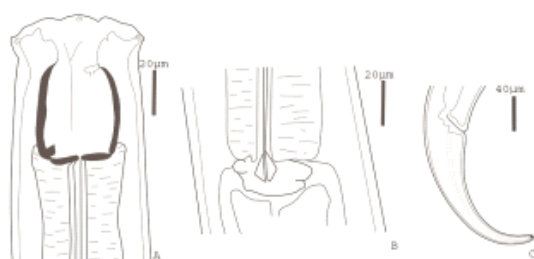


Figure 3. *Iotonchus paracutus* Vinciguerra & Orselli, 2000

A. Buccal cavity; B. Oesophago - intestinal junction region; C. View of female tail region.

Male: Not found in Vietnam.

**Remark:** The measurements and description of Vietnamese specimen correspond well to type population from Italy 14.

**Locality:** Cat Ba National Park (Hai Phong).

#### *Iotonchulus pusillus* Loof, 2006 (Fig. 4)

Material examined: 11 females in good condition. Measurements: see table 4.

**Female:** Moderately slender nematodes of small size, 0.7-0.9 mm. Body curved ventrally behind neck and more strongly towards posterior end of body. Cuticle smooth and about 1  $\mu$ m thick. Lateral chord occupying *ca* one quarter body diameter. Lip region rounded,

offset slightly with the body adjacent. Amphidial fovea cup shaped, aperture 3 m beginning at the anterior end of buccal cavity. Buccal cavity elongated oval with 21-23 m long and 11.5-16 m width. Dorsal tooth with sharply apex directing forwards located 20-25% buccal cavity length from its base. Cardia between oesophagus and intestine tuberculate.

Reproductive system mono-prodelphic, anterior branch well developed with ovary reflexed. Vulva transverse slit with *par refringens vaginae* un-cleared. Rectum straight, thick-walled and muscular, almost equal to anal body width long. Tail 110-148 m long, tail curved more strongly terminally to form a spiral. Caudal gland and *spinneret* not seen.

Table 4. Morphometric data of *Iotonchus pusillus* Loof, 2006

Reference	Distribution	<i>Iotonchus pusillus</i>		
		Hutan Phuchong (Malaysia)	Pulau Pinang (Malaysia)	Bidoup - Nui Ba (Vietnam)
		Loof, 2006		Present paper
n		10 ♀	3 ♀	11 ♀
L (mm)		0.7-0.83	0.91-0.96	0.75-0.9
a		24-28	29-30	22-33
b		3.6-4.0	4.1-4.3	3.9-4.6
c		7.2-8.1	7.0-7.9	5.1-6.8
c'		4.7- 5.9	5.8-6.9	5.5-7.5
V %		64-67	63-65	59-64
Buccal cavity length (m)		22-24	23-24	20.5-23
Buccal cavity width (m)		10-12	11-13	11.5-14
Neck length (m)		193-215	222-229	180-211
Body diameter at vulva (m)		29-33	32-33	22.5 - 36
Anal body diameter (m)		19-21	19-21	18- 27
Tail length (m)		94-114	121-128	110-148

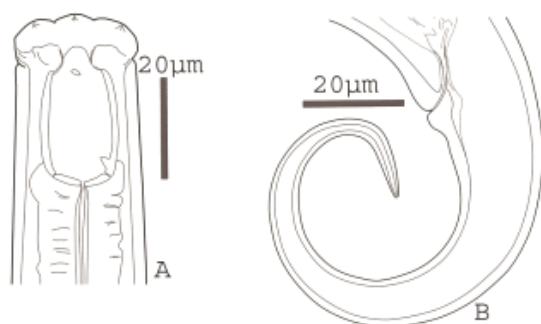


Figure 4. *Iotonchus pusillus* Loof, 2006  
A. Head region; B. View of female tail region.

*Male*: Not found.

*Remark*: The above description and measurements fitted well to type population from Malaysia 6.

*Locality*: Bidoup - Nui Ba National Park (Lam Dong).

#### *Iotonchus singaporensis* Ahmad, Baniyamuddin and Jairajpuri, 2006 (Fig. 5)

Examined specimens: 4 females in good condition. Measurements: see table 5.

*Female*: Moderately slender nematodes of medium size, 1.2-1.3 mm long. Habitus after fixation ventrally curved, tapering gradually towards posterior region and terminating into a long, ventrally arcuate tail. Cuticle smooth, 2-3 µm thick at the mid-body and 3-4 µm on tail. Lateral chords one-fourth to one-third of body width at the mid-body. Lip region clearly demarcated, distinctly wider than adjoining body. Labial pappilae slightly projected above labial contour. Amphids cup shaped with slit like apertures near base of lips. Buccal cavity medium size, barrel shaped, flat at base, strongly sclerotized, 30-32 m long and 17-18 m wide. Dorsal tooth small, anteriorly directed, its tip at about 23-28% from the base. Nerve ring at 38-

40% neck length from anterior end. Excretory pore distinct. Oesophago-intestinal junction tuberculate. Reproductive system monodelphic, anterior branch well developed with ovary reflexed, posterior branch completely absent. Vulva transverse slit, vagina anteriorly directed, *par refringens* vaginae sclerotized as 2

triangular pieces. Rectum straight, thick-walled and muscular, 0.5-0.6 anal body width long. Tail elongate, ventrally arcuate, gradually tapering to an almost acute terminus, 270-280  $\mu$ m long or 8-10 anal body width long. Caudal glands weakly developed, grouped and *spinneret* presents sub-ventral terminus.

Table 5. Morphometric data of *Iotonchus singaporensis* Ahmad, Baniyamuddin and Jairajpuri, 2006

Reference	Distribution	<i>Iotonchus singaporensis</i>	
		Kent Ridge park (Singapore)	Cat Ba park (Vietnam)
		Ahmad et al., 2005	Present paper
n		15 ♀	4 ♀
L (mm)		1.039-1.232	1.2-1.3
a		26-31	26-27
b		3.7-4.2	3.8-4.1
c		5.1-6.7	4.6-4.9
c'		6.3-8.3	8-9.4
V%		59-65	60-62
Buccal cavity length ( $\mu$ m)		31-33	30-32
Buccal cavity width ( $\mu$ m)		18-19	16.8-17.6
Body diameter at vulva ( $\mu$ m)		36-41	34-54
Anal body diameter ( $\mu$ m)		22-25	28-33
Neck length ( $\mu$ m)		262-296	290-333
Tail length ( $\mu$ m)		164-225	270-276

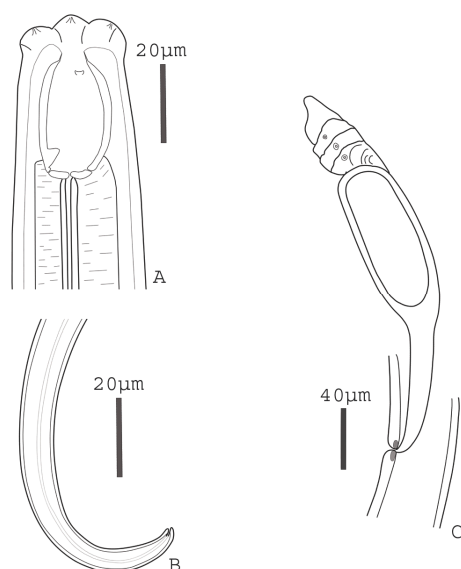


Figure 5. *Iotonchus singaporensis* Ahmad, Baniyamuddin and Jairajpuri, 2006.  
A. Head region; B. Female reproductive region; C. Tail terminus.

Male: Not found.

**Remark:** The above description and measurements fitted well to type population from Singapore 1.

**Locality:** Cat Ba National Park (Hai Phong).

**Discussion about *Iotonchus thui* Nguyen, 2006 and *I. helicus* Nguyen, 2006**

**Note for history of *Iotonchus thui* Nguyen, 2006**

In 2005, “*Iotonchus thui*” was first recorded by Nguyen Vu Thanh as “*Iotonchus thui* Coomans & Nguyen Thi Thu, 2001” in the book: *Predatory Nematodes of Mononchida in Vietnam* [8], based on results of the master thesis of Nguyen Thi Thu (2001, Ghent University, Belgium) [7]. In this thesis, the new species was described and illustrated but remained unnamed. It was based on material with males and females from two different localities. Moreover, the thesis is not considered



a publication. Therefore, the species name is a *nomen nudum*.

In 2006, "*Iotonchus thui*" was described and published as a new species again by Nguyen Vu Thanh in Tap chi Sinh hoc (Journal of Biology) [9] though with the wrong illustration i.e. the illustration of *I. nayari* Mohandas & Prabhoo, 1979 in the master thesis was used [7]. The female holotype and paratypes were recorded from Ha Giang province while the male paratypes were from Cuc Phuong National Park, Ninh Binh province; no detailed information was provided on the type locality. According to article 16.4.1 of ICZN [16], the type series should come from the same locality. One should be very careful when combining specimens from different localities.

Further, the author explained that the name "*thui*" was referring to the person firstly collected specimens. However, according to article 31.1.2 of ICZN [16], as indeed this was the real new species "*thui*" should have been "*thuae*" since the person is a female.

For all the above mentioned reasons, *I. thui* can be considered a sp.inq.

#### For the species of *Iotonchus helicus* Nguyen, 2006

The *I. helicus* Nguyen, 2006 was published in the same article with *I. thui* species [9]. However, the illustration does not fit with its measurements considering the given scale bar. Therefore, we decided to check again holotype and paratypes of this species, which were deposited and preserved at the Department of Nematology, IEBR (Dr. Nguyen Vu Thanh's collection). Unfortunately, all type material

including holotype and paratypes were not available. His collection still has four slides with bad quality. On each of these slides, "Buon Ma Thuat" corresponds on the left hand and "*Iotonchus* sp." on the right hand. In my opinion, this information is not enough evidences to demonstrate that these slides are syntypes of *I. helicus* species.

On original description, *I. helicus* was characterized with small body size (L = 1.17-1.66); short tail; a = 16-21; c = 5.5-6.9; *spinneret* sub-terminal, ventral terminus [9]. However, the author has compared *I. helicus* with *I. rayongensis* Buangsuwon & Jenssen, 1966, *I. thailandensis* Buangsuwon & Jenssen, 1966 (was synonym of *I. transkeiensis* Heyns & Lagerway, 1965) and *I. basidontus* Clark, 1961 without any similarity of main characters. *I. helicus* has *spinneret* on sub-ventral terminus while *I. rayongensis* or *I. basidontus* has *spinneret* on dorsal terminus or terminal and without *spinneret* in case species of *I. transkeiensis* [2].

*I. helicus* and *I. indicus* Jairajpuri, 1969 are very similar in main diagnostic characters as: (i) female didelphic; (ii) *spinneret* sub-ventral; (iii) small species L = 1.2-2 mm; (iv) advulvar body pores absent and (v) as well as in measurements (table 6) [3,4,6,10]; all the measurements of *I. helicus* fit well those of *I. indicus* from original population in Indian as well as other populations from El Salvador, Malaysia and Vietnam exception slightly stout body ( see "a" and "c" ratios) [3, 4, 6, 10].

For all the above mentioned reasons, *I. helicus* can be considered a junior synonym of *I. indicus* Jairajpuri, 1969.

Table 6. Comparison of main morphometric data between *I. helicus* Nguyen, 2006 and *I. indicus* Jairajpuri, 1969

	Locality	<i>Iotonchus helicus</i>		<i>Iotonchus indicus</i>		
		Vietnam	India	El Salvador	Malaysia	Vietnam
Reference		Nguyen, 2006	Jairajpuri, 1969	Baqri & Jairajpuri, 1973	Loof, 2006	Nguyen, 2007
L mm		1.17-1.66	1.54-1.97	1.23-1.79	1.93-2	1.47-1.75

V %	52-57	57-65	56-69	55-57	53.6-58.5
a	16-21	21-32	25-28	32-35	22.7-27.5
b	3.7-4.6	4-4.8	3.7-4.1	4.7	4-4.5
c	5.5-6.9	5-8	5-6	5-5.2	4.8-5.4
c'	4.3-6.1	6-9	?	10.2-10.4	7.6-9
Buccal cavity length (µm)	36-45	40-47	42-50	43-45	44-50.6
Buccal cavity width (µm)	19.8-27.9	28-32	26-29	23-24	23.9-25.8
Tail length (µm)	178-260	200-360	218-345	383-388	286-342

?: no information.

In current paper, 18 species of the genus *Iotonchus* have been recorded in Vietnam. The following adapted key to species is based on Ahmad and Jairajpuri (2010):

- 1a) Female genital organ mono-prodelphic, post-uterine sac very short or absent.....2
- 1b) Female genital organ didelphic. Tail conoid-arcuate or filiform, shorter than 25 anal body diam. Long.....9
- 2a) Post uterine sac shorter than 1 anal body diameter long.....*I. paratrichurus*
- 2b) Post uterine sac practically absent .....3
- 3a) Tail shorter than 4 anal body diam. long ..... *I. anisostomus*
- 3b) Tail longer than 6 anal body diam. long ..... 4
- 4a) Body shorter than 1.3mm ..... 5
- 4b) Body longer than 1.4mm ..... 7
- 5a) Buccal cavity smaller, 22-25 × 9-14 µm ..... 6
- 5b) Buccal cavity larger, 31-36 × 18-20 µm ..... *I. singaporensis*
- 6a) Tail terminus sub-acute, *spinneret* present ..... *I. chantaburensis*
- 6b) Tail terminus rounded, *spinneret* absent ..... *I. pusillus*
- 7a) Buccal cavity larger, 28-32 × 32-37 µm..... *I. baqrii*
- 7b) Buccal cavity smaller and narrower ..... 8
- 8a) Tail shorter than 12 anal body diam. long ..... *I. silvallis*
- 8b) Tail longer than 15 anal body diam. long ..... *I. trichurus*
- 9a) *Spinneret* present ..... 10
- 9b) *Spinneret* absent ..... 15
- 10a) *Spinneret* sub-ventral ..... 11
- 10b) *Spinneret* terminal ..... 12
- 11a) Small species, L = 1.2-2mm. Advulvar papillae absent ..... *I. indicus*
- 11b) Species not as small, L = 2.2-3.4mm. Advulvar papillae present ..... *I. candelabri*
- 12a) Body longer than 3 mm ..... *I. risoceiae*
- 12b) Body shorter than 3 mm .....13
- 13a) Advulvar body pores present ..... 14
- 13b) Advulvar body pores absent ..... *I. basidontus*
- 14a) Buccal cavity narrowing posteriorly. Tail shorter, *ca* 6-9 anal body diam. long..... *I. parabasidontus*



- 14b) Buccal cavity not narrowing posteriorly. Tail longer, *ca* 4-6 anal body diam. Long. *I. nayari*  
 15a) Tail longer,  $c' = 2 - 5$  ..... *I. paracutus*  
 15b) Tail shorter,  $c' \leq 12$  ..... 16  
 16a) Lateral organs present ..... *I. transkeiensis*  
 16b) Lateral organs absent ..... 17  
 17a) Tail strongly curved, clearly narrowing near terminus ..... *I. arcuatus*  
 17b) Tail only slightly ventrally curved with thicker terminal part..... *I. clarki*

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**GHI NHẬN MỚI 5 LOÀI THUỘC GIỐNG *IOTONCHUS* (MONONCHIDA, IOTONCHIDAE) CHO KHU HỆ TUYẾN TRÙNG VIỆT NAM VỚI KHÓA ĐỊNH LOẠI CÁC LOÀI CỦA GIỐNG NÀY Ở VIỆT NAM**

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**TÓM TẮT**

Tuyến trùng sống tự do trong đất thuộc bộ ăn thịt Mononchida đã được nghiên cứu ở Việt Nam từ những năm 90 của thế kỷ trước và đến nay đã ghi nhận được 56 loài thuộc 4 họ 10 giống tại các địa điểm nghiên cứu trên cả nước. Cho đến nay, đã ghi nhận được 15 loài thuộc giống *Iotonchus* (họ Iotonchidae) ở Việt Nam.

Trong bài báo này, 5 loài tuyến trùng thuộc giống *Iotonchus*: *I. arcuatus*, *I. candelabri*, *I. paracutus*, *I. pusillus* và *I. singaporensis* được ghi nhận lần đầu tiên cho khu hệ tuyến trùng Việt Nam, những mẫu của 5 loài này thu được từ hai vườn quốc gia Cát Bà và Bidoup-Núi Bà.

Hai loài tuyến trùng đã được ghi nhận ở Việt Nam trước đây là *I. thui* Nguyen, 2006 và *I. helicus* Nguyen, 2006 được xem là đồng vật mới. Khóa định loại cho tất cả các loài thuộc giống *Iotonchus* đã được xây dựng. Như vậy, cho đến nay, có 18 loài tuyến trùng thuộc giống *Iotonchus* đã được ghi nhận cho khu hệ tuyến trùng Việt Nam.

*Từ khóa:* Mononchida, Iotonchidae, *Iotonchus*, taxonomy.

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